



JDK Time Zone Update Instructions

Public Health Information Network Messaging System (PHINMS)

Version 1.0.0

**Prepared by:
U.S. Department of Health & Human Services**

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EXECUTIVE SUMMARY

Public health involves many organizations throughout the PHIN (Public Health Information Network), working together to protect and advance the public's health. These organizations need to use the Internet to securely exchange sensitive data between varieties of different public health information systems. The exchange of data, also known as "messaging" is enabled through messages created using special file formats and a standard vocabulary. The exchange uses a common approach to security and encryption, methods for dealing with a variety of firewalls, and Internet protection schemes. The system provides a standard way for addressing and routing content, a standard and consistent way for information systems to confirm an exchange.

The PHINMS (Public Health Information Network Messaging System) is the software which makes this work. The system securely sends and receives sensitive data over the Internet to the public health information systems using Electronic Business Extensible Markup Language (ebxml) technology.

The PHINMS Project Team goal is to prevent potential problems from occurring due to the Daylight Savings Time (DST) which has been extended to cover four additional weeks. The extended DST is in compliance with the U.S. Energy Policy Act of 2005.



REVISION HISTORY

VERSION #	IMPLEMENTER	DATE	EXPLANATION
1.0.0	Travis Mayo	Mar 8, 2007	Created version 1.0.0.
1.0.0	Wendy Fama	Mar 12, 2007	Updated version 1.0.0.
1.0.0	Wendy Fama	Mar 13, 2007	Added section 1.2 and updated section 2.1.

TABLE OF CONTENTS

1.0	Introduction.....	7
1.1	Objective	7
1.2	Disclaimer	7
2.0	Time Zone Update Instructions.....	8
2.1	Time Zone Updater Tool	8
2.2	Tomcat Senders and Receiver.....	12
2.3	BEA Web Logic Receivers	13

LIST OF FIGURES

Figure 1. JDK US DST Timezone Update Tool - 1.1.0.....	8
Figure 2. Sun Download Center.....	8
Figure 3. Registration.....	9
Figure 4. License Agreement.....	10
Figure 5. File Download	11
Figure 6. Save As	11
Figure 7. Download Zip File.....	11
Figure 8. Zip File	12
Figure 9. Extract.....	12
Figure 10. Tomcat Cmd Exe.....	13
Figure 11. Tomcat Current Time Zone	13
Figure 12. Tomcat Update Time Zone.....	13



ACRONYM LIST

CDC	Centers for Disease Control and Prevention
DST	Daylight Savings Time
JDK	Java Development Kit
JRE	Java Runtime Environment
PHINMS	Public Health Information Network Messaging System
SDK	Software Development Kit
TM	Trademark
US	United States

1.0 INTRODUCTION

Daylight Saving Time (DST) is a system of handling the changing amounts of daylight throughout the year. The goal of DST is to maximize the daylight hours available during typical waking hours.

The Java Runtime Environment (JRE) stores rules about DST observance all around the globe. Older JREs will have outdated rules that will be superseded by the Energy Policy Act of 2005. Applications running on an older JRE version may report incorrect time from March 11, 2007 through April 2, 2007 and from October 29, 2007 through November 4, 2007.

The latest update release of the Java platforms (6, 5.0, 1.4.2, and 1.3.1) already contain the current DST rules for the United States and Canada. Time zone data that adheres to the new DST rules was introduced in the following update releases of the Java platform:

- 1.3.1_18,
- 1.4.2_11,
- 5.0_u9, and
- 6.

1.1 Objective

The objective of the PHINMS Team is to prevent concerns about the PHINMS application failing which may result from the DST changes. PHINMS versions prior to 2.7.0 SP1 (scheduled for release soon) have not been tested with more recent versions of JDK; therefore, only use the JRE patch provided by SUN which will eliminate malfunctions. A tool has been provided to modify the time zone data within the existing JDK or JRE software. The TZupater tool supports JDK/JRE versions 1.4 or later. The update instructions are listed in the following sections.

1.2 Disclaimer

The Centers for Disease and Control and Prevention (CDC) provides suggested guidance in the following sections pertaining to the JDK for the DST upgrade. The CDC cannot guarantee these utilities created by non-CDC sources will perform as described. The CDC staff has tested using these tools and procedures. The team found the results to be satisfactory. The CDC cannot take into consideration all possible configurations and possible implications. The SUN's website will have further detailed information about addressing DST issues.

2.0 TIME ZONE UPDATE INSTRUCTIONS

2.1 Time Zone Updater Tool

The time zone updater tool is necessary to allow the updating of installed JDK/JRE images with more recent time zone data in order to accommodate the United States' 2007 daylight saving time changes.

Note: This document pertains to PHINMS versions 2.5.00, 2.6.00 SP1, and 2.7.00. It is not guaranteed to work with PHINMS version 2.1. Contact the PHINMS Help Desk for assistance with PHINMS version 2.1.

Download the necessary files needed to update the time zone by complete the following steps:

1. navigate to <http://java.sun.com/javase/downloads/index.jsp>, displaying Figure 1,



Figure 1. JDK US DST Timezone Update Tool - 1.1.0

2. click **Download** for JDK US DST Timezone Update Tool - 1.1.0, displaying Figure 2,

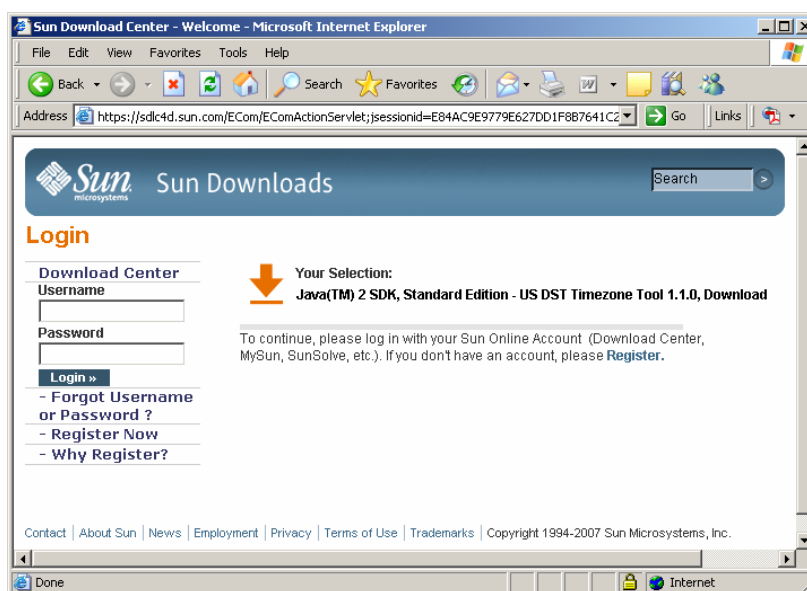


Figure 2. Sun Download Center

3. click on **Register Now**, displaying Figure 3,

ACCOUNT INFORMATION
Required Fields

Your username must be at least 6 valid characters: a-z, 0-9, -, (dash), _ (underscore), . (period), @ (at). Password requires at least 6 standard ASCII characters. Note: Username and Password are case-sensitive.

*Username:

*Password:

*Re-Type Password:

Please select a security question and enter the answer so we may verify your identity if you forget your password. The answer is case-sensitive.

*Security Question:

*Answer:

CONTACT INFORMATION
Required Fields

Salutation:

*First Name:

*Last Name:

*E-mail Address: (no group aliases please)

Company:

Job Function:

Organization:

*Street Address:

*City:

State/Province: Required for United States

Postal Code: Required for United States

*Country:

*Phone:

Fax:

* May Sun also contact you with general product and service information? ☐ Yes ☐ No

* May Sun also share this information with business associates to contact you and to bring a wider array of information? ☐ Yes ☐ No

If you have any questions about this form or would like to update this information in the future, please refer to the [FAQ](#) or contact [Download Center Customer Service](#).

[Register](#)

Figure 3. Registration

4. complete the information requested and click **Register**, displaying Figure 4,



Download

[Download Center](#)
[- Update Account](#)
[- Log Out](#)

Java(TM) 2 SDK, Standard Edition - US DST Timezone Tool 1.1.0

NOTE:
 We highly recommend using [Sun Download Manager \(SDM\)](#), as it lets you pause, resume, and restart your download while ensuring a successful download experience. Just select the files you want to download, then click the "Download Selected with Sun Download Manager" button to automatically install and start SDM. Alternately, click directly on the links in the file list to download through your browser. For any download problems or questions, please see the [Download Center FAQ](#).
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Platform - Java(TM) 2 SDK, Standard Edition - US DST Timezone Tool 1.1.0			
<input checked="" type="checkbox"/>			
<input type="checkbox"/>	Java(TM) 2 SDK, Standard Edition - US DST Timezone Tool 1.1.0	tzupdater-1.1.0-2007c.zip	469.27 KB

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Notes
 - If you don't complete your download, you may return to the Download Center anytime, sign in, then click the "Download/Order History" link on the left to continue.
 - For Customer Service, contact [Download Center Customer Service](#).

Figure 4. License Agreement

5. select **Accept License Agreement**, click on the link **Java(TM) 2 SDK, Standard Edition - US DST Timezone Tool 1.1.0**, displaying Figure 5,

Note: It is not necessary to click on **Download selected with Sun Download Manager**.

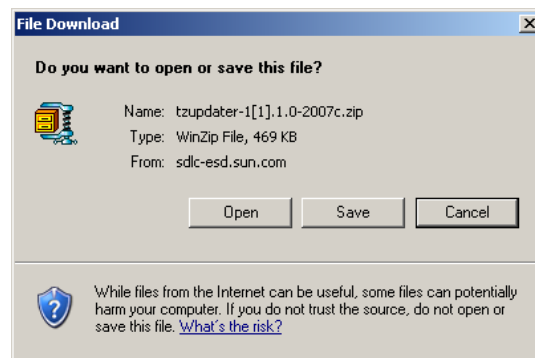


Figure 5. File Download

6. click **Save**, displaying Figure 6,

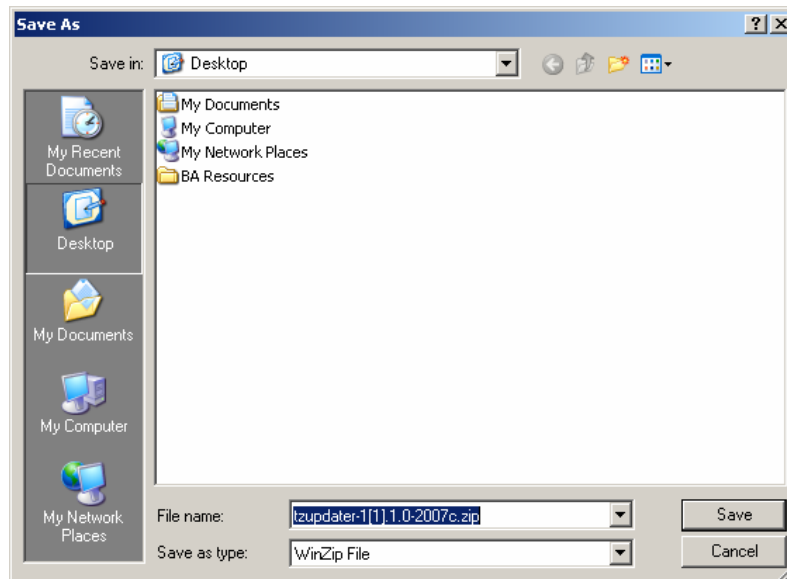


Figure 6. Save As

7. save **tzupdater-1[1].1.0-2007c.zip** to a temp directory, click **Save**, displaying Figure 7,

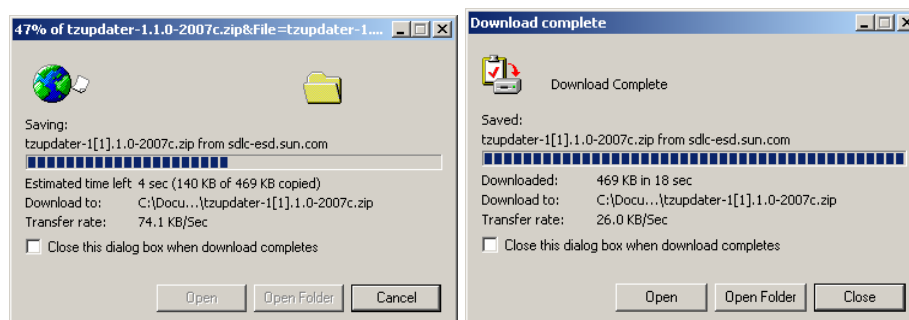


Figure 7. Download Zip File

8. open **tzupdater-1[1].1.0-2007c.zip** file saved to the temp directory, displaying Figure 8,

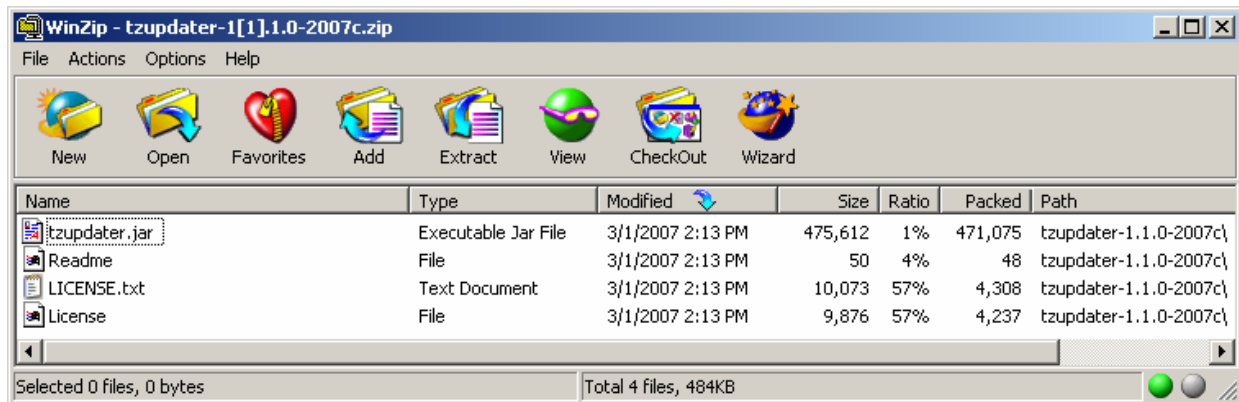


Figure 8. Zip File

9. click **Extract**, displaying Figure 9,

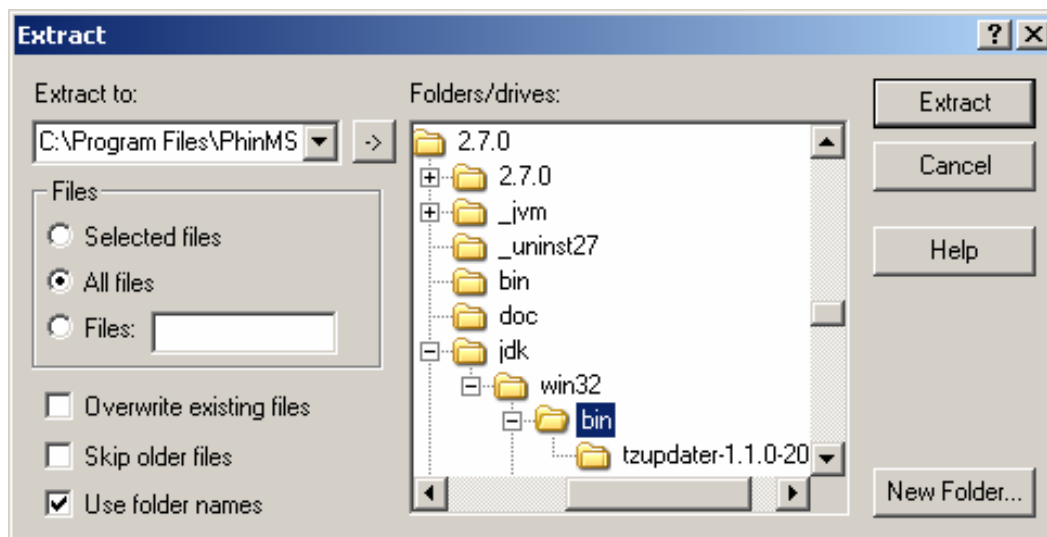


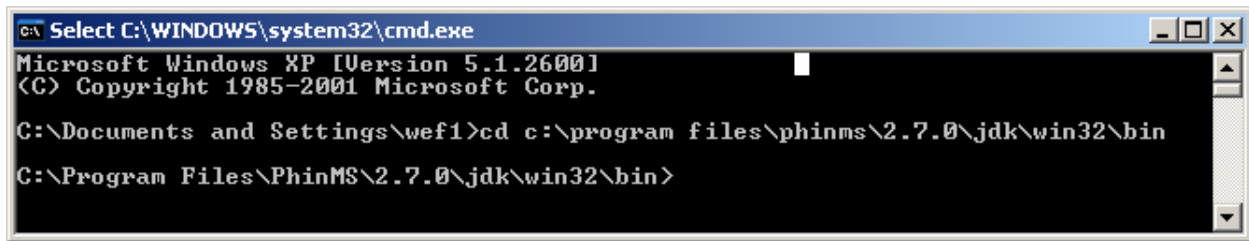
Figure 9. Extract

10. select **All Files**, navigate to **C:\program files\phinms\2.7.0\jdk\win32\bin**, click **Extract**, close window,

2.2 Tomcat Senders and Receiver

Complete the following steps for Senders and Receivers running on Tomcat:

1. stop the PHINMS Service,
2. open a **cmd** prompt, change to the **C:\program files\phinms\2.7.0\jdk\win32\bin** directory, displaying Figure 10,



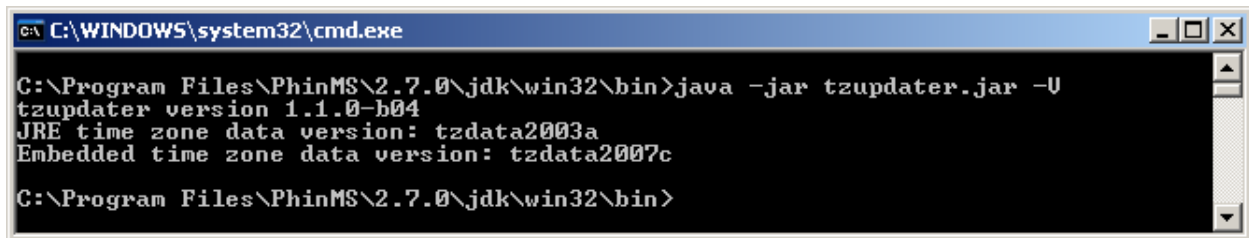
```

C:\ Select C:\WINDOWS\system32\cmd.exe
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.

C:\Documents and Settings\wef1>cd c:\program files\phinms\2.7.0\jdk\win32\bin
C:\Program Files\PhinMS\2.7.0\jdk\win32\bin>
  
```

Figure 10. Tomcat Cmd Exe

3. check current time zone data version by `java -jar tzupdater.jar -V`, displaying Figure 11,



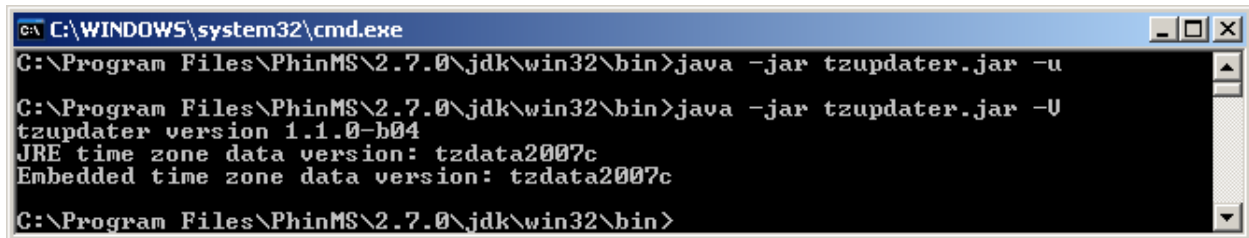
```

C:\ C:\WINDOWS\system32\cmd.exe

C:\Program Files\PhinMS\2.7.0\jdk\win32\bin>java -jar tzupdater.jar -V
tzupdater version 1.1.0-b04
JRE time zone data version: tzdata2003a
Embedded time zone data version: tzdata2007c
C:\Program Files\PhinMS\2.7.0\jdk\win32\bin>
  
```

Figure 11. Tomcat Current Time Zone

4. update time zone to the new version by `java -jar tzupdater.jar -u`, and `java -jar tzupdater.jar -V` confirming the update was successful, displaying Figure 12, and



```

C:\ C:\WINDOWS\system32\cmd.exe

C:\Program Files\PhinMS\2.7.0\jdk\win32\bin>java -jar tzupdater.jar -u
C:\Program Files\PhinMS\2.7.0\jdk\win32\bin>java -jar tzupdater.jar -V
tzupdater version 1.1.0-b04
JRE time zone data version: tzdata2007c
Embedded time zone data version: tzdata2007c
C:\Program Files\PhinMS\2.7.0\jdk\win32\bin>
  
```

Figure 12. Tomcat Update Time Zone

5. restart **PHINMS**.

Note: The time zone will need to be installed every time PHINMS is reinstalled or upgraded.

2.3 BEA Web Logic Receivers

Follow the same instructions in Sections 2.1 and 2.3, but place the `tzupdater.jar` file in the `x:\bea\jdk142_xx\bin` directory (xx represents the version of JDK).